

**CLAIMS**

What is claimed is:

1. A method of facilitating on-line shopping by a shopper at a supported merchant web site, the shopper having a computer with an Internet browser installed thereon, said method comprising the steps of:

(a) communicating computer code to add a shopping assistant button to a toolbar of the Internet browser;

(b) creating a wallet for the shopper in a database on a server, the wallet being secured by a first security key previously received from the shopper;

(c) receiving a second security key from the shopper;

(d) comparing the first security key and the second security key; and

(e) if the first and second security keys are the same, communicating the wallet to the computer.

2. A method as recited by claim 1, further comprising the step of providing a supported merchant rules and mapping file for the supported merchant, and wherein said step (a) further comprises communicating computer code for automatically filling out a check-out web page of the supported merchant web site using the wallet and the supported merchant rules and mapping file.

3. A method as recited by claim 1, wherein the shopping assistant button comprises a pull-down menu.

4. A method as recited by claim 1, wherein said step (b) comprises:  
communicating a web page for display by the Internet browser;

receiving shopper data entered by the shopper in the web page; and  
storing at least a portion of the shopper data as a wallet for the shopper in the database.

5. A method as recited by claim 1, wherein said step (a) further comprises communicating computer code to monitor the Internet navigation of the Internet browser by intercepting an Internet address for each Internet site to which the Internet browser is caused to navigate.

6. A method as recited by claim 5, further comprising the step of providing a supported merchant rules and mapping file for the supported merchant, and wherein said step (a) further comprises communicating computer code for automatically filling out a check-out web page of the supported merchant web site using the wallet and supported merchant rules and mapping file.

7. A method as recited by claim 1, further comprising the step of providing a supported merchant rules and mapping file for the supported merchant, and wherein said step (a) further comprises communicating computer code for determining if a merchant web site is a supported merchant web site.

8. A method as recited by claim 7, wherein said step (a) further comprises determining if a merchant web site is a supported merchant web site by comparing the supported merchant data file with an Internet address for each Internet site to which the Internet browser is caused to navigate.

9. A method as recited by claim 7, wherein the computer code provides an indicator for the shopping assistant button when the Internet browser is at a supported merchant web site.

10. A method as recited by claim 1, wherein said step (a) further comprises communicating computer code for intercepting each web page received by the browser and determining the type of web page by HTML code and http request headers provided in the intercepted web page.

11. A method as recited by claim 1, wherein said step (e) comprises communicating a secure cookie to the computer.

12. An Internet browser interface displayable by an Internet browser on a computer display comprising:

a toolbar; and

a shopping assistant button in said toolbar and defined by computer code operable with a processor of the computer for:

intercepting an Internet address for each Internet site to which the Internet browser is caused to navigate;

determining if a web site to which the Internet browser is caused to navigate is a supported merchant web site; and

if the web site is a supported merchant web site, automatically filling out a check-out web page of the supported merchant web site using a wallet and a supported merchant rules and mapping file.

13. An Internet browser interface as recited by claim 12, wherein said determining step comprises determining if a web site to which the Internet browser is caused to navigate is a supported merchant web site by comparing a supported merchant data file with an Internet address for each Internet site to which the Internet browser is caused to navigate.

14. An Internet browser interface as recited by claim 12, wherein said shopping assistant button comprises a pull-down menu.

15. An Internet browser interface as recited by claim 12, wherein the computer code is further operable with the processor for adding a toolbar and the shopping assistant button to said Internet browser interface.

16. An Internet browser interface as recited by claim 12, wherein said shopping assistant button provides an indicator when the Internet browser is caused to navigate to a supported merchant web site.

17. An Internet browser interface as recited by claim 12, wherein the computer code is further operable with the processor for intercepting each web page received by the browser and determining the type of web page by HTML code and http request headers provided in the intercepted web page.

18. A system for facilitating on-line shopping by a shopper having a computer with an Internet browser, said system comprising:

a server comprising:

a data storage device having a database thereon; and

a processor operable with software for:

communicating shopping assistant computer code to add a shopping assistant button to a toolbar of the Internet browser;

receiving wallet data including a first security key from the shopper and creating a wallet for the shopper in the database, the wallet being secured by the first security key;

receiving a second security key from the shopper;  
 comparing the first security key and the second security key; and  
 if the first and second security keys are the same, communicating  
 the wallet to the computer.

19. A system as recited by claim 18, wherein said server is a secure server.

20. A system as recited by claim 18, wherein said processor is further operable with software for providing a supported merchant rules and mapping file when the shopper has caused the Internet browser to navigate to a supported merchant web site, and wherein the shopping assistant code for automatically fills out a check-out web page of the supported merchant web site using the wallet and supported merchant rules and mapping file.

21. A method of facilitating on-line shopping by a shopper at a supported merchant web site, the shopper having a computer with an Internet browser installed thereon, said method comprising the step of communicating computer code to add a shopping assistant button to the Internet browser, wherein said computer code intercepts an Internet address for each Internet site to which the Internet browser is caused to navigate, determines if a web site to which the Internet browser is caused to navigate is a supported merchant web site, and if the web site is a supported merchant web site, automatically fills out a check-out web page of a supported merchant web site using a wallet and a supported merchant rules and mapping file.

22. A method as recited by claim 21, wherein said communicating step further comprises communicating computer code to add a shopping assistant button and a toolbar of the Internet browser.

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23. A method as recited by claim 21, wherein said shopping assistant button further provides an indicator when the Internet browser is caused to navigate to a supported merchant web site.

24. A method as recited by claim 21, wherein said computer code determines if a web site to which the Internet browser is caused to navigate is a supported merchant web site by comparing a supported merchant data file with an Internet address for each Internet site to which the Internet browser is caused to navigate.

25. A method of dynamically controlling an Internet browser interface displayable by a browser on a display of a computer, a file being located on a data storage device of the computer and defining a shopping assistant interface object, said method comprising the steps of:

- (a) causing the file to open when a user of the computer and browser activates the browser;
- (b) causing the browser to establish a connection to a predetermined Internet site;
- (c) receiving in the file, from the predetermined Internet site, information for defining all or part of the shopping assistant interface object;
- (d) displaying the shopping assistant interface object along with the Internet browser interface on the computer display while the browser is activated; and
- (e) preventing the file from closing while the browser is activated.

26. A method as recited by claim 25, further comprising the steps of:

- (f) periodically causing the browser to establish a connection to the predetermined Internet site; and

(g) receiving in the file, from the predetermined Internet site, additional information for defining all or part of the shopping assistant interface object.

27. A method as recited by claim 25, wherein said step (e) further comprises executing a program loop to prevent the file from closing.

28. A method as recited by claim 27, further comprising the step of terminating the program loop when the browser is no longer activated.

29. A method as recited by claim 25, wherein said step (b) comprises automatically causing the browser to establish a connection to a predetermined Internet site.

30. A method as recited by claim 25, wherein said file contains computer code for intercepting an Internet address for each Internet site to which the Internet browser is caused to navigate, determining if a web site to which the Internet browser is caused to navigate is a supported merchant web site, and if the web site is a supported merchant web site, automatically filling out a check-out web page of a supported merchant web site using a wallet and a supported merchant rules and mapping file.

31. A method as recited by claim 25, wherein said file contains computer code for adding a shopping assistant button and a toolbar of the Internet browser.

32. A method as recited by claim 25, wherein said file contains computer code for providing an indicator when the Internet browser is caused to navigate to a supported merchant web site.

33. A method as recited by claim 25, wherein said files contains computer code for determining if a web site to which the Internet browser is caused to navigate is a supported

merchant web site by comparing a supported merchant data file with an Internet address for each Internet site to which the Internet browser is caused to navigate.

34. A method of causing an Internet browser to access a predetermined Internet site, said method comprising the steps of:

(a) providing a file on a computer including a definition of a shopping assistant interface object and instructions for the Internet browser; and

(b) upon activation of the Internet browser by a user of the computer, and in response to the instructions in the file, automatically causing the Internet browser to establish a connection to the predetermined Internet site.

35. A method as recited by claim 34, further comprising the step of receiving in the file, from the predetermined Internet site, information for defining all or part of the shopping assistant interface object.

36. A method as recited by claim 34, wherein said file contains computer code for intercepting an Internet address for each Internet site to which the Internet browser is caused to navigate, determining if a web site to which the Internet browser is caused to navigate is a supported merchant web site, and if the web site is a supported merchant web site, automatically filling out a check-out web page of a supported merchant web site using a wallet and a supported merchant rules and mapping file.

37. A method as recited by claim 34, wherein said file contains computer code for adding a shopping assistant button and a toolbar of the Internet browser.



38. A method as recited by claim 34, wherein said file contains computer code for providing an indicator when the Internet browser is caused to navigate to a supported merchant web site.

39. A method as recited by claim 34, wherein said files contains computer code for determining if a web site to which the Internet browser is caused to navigate is a supported merchant web site by comparing a supported merchant data file with an Internet address for each Internet site to which the Internet browser is caused to navigate.

40. An Internet browser interface displayable by an Internet browser on a computer display and including an ActiveX control shopping assistant interface object that is displayed with the Internet browser interface while the browser is activated and which provides a link to a predetermined Internet site regardless of the Internet site to which the computer is connected via the browser.

41. An Internet browser interface as recited by claim 40, wherein said ActiveX control shopping assistant interface object causes the Internet browser to establish a connection to the predetermined Internet site.

42. An Internet browser interface displayable by an Internet browser on a computer display and including a Plug-in shopping assistant interface object that is displayed with the Internet browser interface while the browser is activated and which provides a link to a predetermined Internet site regardless of the Internet site to which the computer is connected via the browser.

FOOTNOTES

43. An Internet browser interface as recited by claim 42, wherein said Plug-in shopping assistant interface object causes the Internet browser to establish a connection to the predetermined Internet site.

44. A method of controlling an Internet browser interface displayable by an Internet browser on a display of a computer, the Internet browser enabling a user of the computer and Internet browser to access and navigate the Internet and to receive and display on the computer display one or more web pages from one or more Internet sites, including the display of a web page from a predetermined Internet site, the Internet browser having at least one Internet browser toolbar having at least one toolbar button providing a predetermined functionality to the user of the computer and Internet browser, said method comprising the steps of:

(a) providing, at the predetermined Internet site, access to a program for controlling the Internet browser interface; and

(b) making available for downloading by the predetermined Internet site, a file for displaying of a user toolbar and a shopping assistant interface object as part of the Internet browser interface.

45. A method as recited by claim 44, wherein the file comprises an ActiveX control.

46. A method as recited by claim 44, wherein the file comprises a Plug-in.

47. A method as recited by claim 44, wherein the shopping assistant interface object is a toolbar button.

48. A method as recited by claim 44, wherein said file contains computer code for intercepting an Internet address for each Internet site to which the Internet browser is caused to navigate, determining if a web site to which the Internet browser is caused to navigate is a

supported merchant web site, and if the web site is a supported merchant web site, automatically filling out a check-out web page of a supported merchant web site using a wallet and a supported merchant rules and mapping file.

49. A method as recited by claim 44, wherein said file contains computer code for adding a shopping assistant button and a toolbar of the Internet browser.

50. A method as recited by claim 44, wherein said file contains computer code for providing an indicator when the Internet browser is caused to navigate to a supported merchant web site.

51. A method as recited by claim 44, wherein said files contains computer code for determining if a web site to which the Internet browser is caused to navigate is a supported merchant web site by comparing a supported merchant data file with an Internet address for each Internet site to which the Internet browser is caused to navigate.

52. A system for controlling an Internet browser interface displayable by an Internet browser on a display of a computer, said system comprising:

a server, said server including a program accessible over the Internet by a user of the computer for controlling the Internet browser interface; and

a file downloadable by said server to the computer for controlling the Internet browser interface, wherein said downloadable file causes a user toolbar and a shopping assistant interface object to be added to the browser interface and to be displayed on the display of the computer as part of the Internet browser interface while the Internet browser is activated regardless of the Internet site to which the computer is connected via the Internet browser..

53. A system as recited by claim 52, wherein said shopping assistant interface object comprises an ActiveX control.

54. A system as recited by claim 52, wherein said shopping assistant interface object comprises a Plug-in.

55. A system as recited by claim 52, wherein said file contains computer code for intercepting an Internet address for each Internet site to which the Internet browser is caused to navigate, determining if a web site to which the Internet browser is caused to navigate is a supported merchant web site, and if the web site is a supported merchant web site, automatically filling out a check-out web page of a supported merchant web site using a wallet and a supported merchant rules and mapping file.

56. A system as recited by claim 52, wherein said file contains computer code for adding a shopping assistant button and a toolbar of the Internet browser.

57. A system as recited by claim 52, wherein said file contains computer code for providing an indicator when the Internet browser is caused to navigate to a supported merchant web site.

58. A system as recited by claim 52, wherein said files contains computer code for determining if a web site to which the Internet browser is caused to navigate is a supported merchant web site by comparing a supported merchant data file with an Internet address for each Internet site to which the Internet browser is caused to navigate.